ORDER

ADMINISTRATIVE DATA PROCESSING MANAGEMENT

June 8, 1979

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

RECORD OF CHANGES

DIRECTIVE NO. WE 1370.1A

CHANGE TO BASIC	SUPPLEMENTS			OPTIONAL USE	CHANGE TO BASIC	SUPPLEMENTS			OPTIONAL USE

FAA Form 1320-5 (5-68) SUPERSEDES PREVIOUS EDITION

FOREWORD

Last January the subject matter of this order was coordinated in a different format with all interested parties. Voluminous comments were received. Most of them have been accommodated in this revised order. One result is this change in format to bring together in one directive the data processing instructions an individual user might need in order to request services. This order repeats certain data from pertinent Agency orders whose distribution was restricted to division level.

Chapter 6 of this order is not yet completed and will be added at a later date, as soon as we can complete it. Rather than have further delay re-coordinating this order solely for format after Chapter 6 is ready, we are publishing it now with the understanding that if any of you feel that certain changes, additions or deletions are needed, you may let AWE-60 know so they can be included at the time the remaining chapter is issued.

LEON C. DAUGHERTY
Director

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CHAPTER 1. GENERAL

100. PURPOSE. This order establishes regional policy and responsibilities for the management of automated administrative management information and data systems, and for automated administrative data services. It establishes a Regional Information Systems Review Committee to provide top management input and oversight to existing and proposed regional data systems, major revisions to existing regional data systems, or any other requests or proposals which would have significant impact on regional data processing resources or priorities. This includes requests for regional data processing resources to develop, program, and implement national systems applications.

101. DISTRIBUTION. This order is distributed to the branch level in the Western Region.

102. CANCELLATION. Regional Order WE 1370.4, Requests for New or Revised Automatic Data Processing (ADP) Services, dated 12/10/74, is cancelled. The procedures set forth in NW 1370.5 and RM 1370.4 will remain in effect until new procedures are issued to NW and RM.

103. SCOPE. This order applies to all automated management information or data systems and services; other requirements for automated management and program data whether they are continuing or one time; all requirements for ADP hardware, terminals, communication lines, auxiliary equipment, and software; and all studies for the development of such systems or require-ments. It applies without regard to the manner and source of funding or organizational control of services, and to both in-house and contractual services; however:

    a. This order does not apply to the National Airspace System (NAS) real-time air traffic control computer system, or to any systems used for the maintenance of NAS associated equipment. It does apply to non-NAS computer systems which provide administrative data and services to field or regional organizational elements.

    b. This order does not apply to commercial computer time-sharing in the Northwest and Rocky Mountain Regions who have their own orders covering this functional area.

104. BACKGROUND. Several Agency orders covering various areas of data processing management were distributed only to division level in the regions. This order endeavors to capsulate for regional users those items they need to know in order to obtain and use ADP services. For the benefit of those who might wish to review the greater detail of the Agency orders they are as follows:

Order 1370.32A, Use of Computer Time Sharing.
Order 1370.48, Automated Data Systems and Automatic Data Processing.
Order 1370.50, Data Systems, Equipment and Services Plan.
Order 1370.52, Procedures and Documentation Requirements for
Approving Automated Systems.
Order 1370.55, Automatic Data Processing Service Request Procedures.

All of these should be available in your division master directives files.

105.-199. RESERVED.

CHAPTER 2. DEFINITIONS

200. AUTOMATED DATA SERVICES. Services, provided through the use of automated data processing, whether in-house or by contract.

201. TIME SHARING. A form of automated data services in which multiple users have access to a remotely located computer through on-site terminals; sometimes used as a synonym for contractual services, although time-sharing can be made available from an in-house computer.

202. DATA SYSTEM. A system designed to provide the managers of an organization with the information they need to keep informed of the current status of the organization, to understand its implications, and to make and implement the appropriate planning and operating decisions. The system gathers and summarizes program, operational, and aviation universe data for operational support, analysis, management decision, and control. The system included a specified data base, procedures, ADP services, if necessary, and reports.

203. MANAGEMENT INFORMATION SYSTEM. In general usage, the same as data systems; agency usage tends to limit the term to specific reports and displays developed for top management use (see Order 1800.32, Management Information System).

204. PROGRAM DATA. Data needed (exclusive of ATC operational data requirements) for the scientific, technical, administrative, and managerial functions of the agency. Program data includes factual information needed for any off-line purpose, such as flight inspection, flight information, facility maintenance, airmen and aircraft records maintenance, material support, financial management, personal management, payroll services, financial reporting, and statistical reporting. Program data is sometimes referred to as operational data, but should not be confused with real-time air traffic control data. However, program data also includes factual information gathered, assembled, and recorded incident to real-time air traffic control operations.

205. NATIONAL (DATA) SYSTEM. 1/ A management information system meeting any one of the following criteria:

(1) Data from the system is used in more than one office, service, region, and/or center or in more than one program.

(2) Output from the system is disseminated nationally to a segment of the aviation public or other government elements.

1/ Note that for purposes of these definitions it is not significant where the data is processed or in how many locations.

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(3) Input to the system comes from more than one office, service, region, or center; national headquarters of nongovernmental organizations or government agencies; or segments of the public beyond the geographical boundaries of the region.

206. <u>LOCAL (DATA) SYSTEM</u>. <u>1</u>/ All others. Generally these will meet either of the following criteria:

(1) A management information system used only for internal management by a single office, service, region or center.

(2) A management information system used by a single region for operational purposes provided that the data source and dissemination is confined to the geographic jurisdiction of that region.

207. <u>SYSTEM LIFE CYCLE COST</u>. The total cost of a data systems application over its anticipated life span, which for the purpose of this order will cover a minimum three year period of time. Elements included in this determination are the cost of design, development, operation and maintenance, as well as equipment and supply cost calculated in terms of present value.

208.-299. <u>RESERVED</u>.

<u>1</u>/ Note that for purposes of these definitions it is not significant where the data is processed or in how many locations.

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CHAPTER 3. POLICY

300. <u>REGIONAL DATA SYSTEMS, EQUIPMENT AND SERVICE PLAN.</u> The Region shall establish and maintain a comprehensive Regional plan for the provision of data services and automatic data processing (ADP) support and for the development and operation of Regional administrative data systems. The Regional Data Systems, Equipment and Service Plan (RDSES Plan) is supplementary to the National DSES Plan and shall identify Regional data requirements; authorized Regional data systems; necessary ADP support, including equipment and software; resource requirements; and related priorities. The Plan shall also provide for the integration of data systems, identify offices of primary interest (OPI), and provide for the optimum use of all ADP and data resources.

301. <u>OPERATION.</u> Regional data systems and supporting ADP equipment and services shall be approved, maintained, and operated within context of the RDSES Plan. Approval of entry into the RDSES Plan shall be based on a Requirements and Priority Statement covering need, use, timing, and intent to commit resources.

302. <u>APPROVAL.</u> Entry of a system into the RDSES Plan does not, in itself, constitute approval of a system. Approval for development and ultimate implementation shall be based on a definitive feasibility study, design studies, and implementation planning. Documentation shall cover requirements, application, alternatives, cost/benefit, resource requirements and availability, and priority. The extent of the documentation shall be commensurate with the anticipated costs and impact of the proposed system or acquisition, and shall conform to estabished standards. The more costly and complex systems will require specific management approvals at key points through the proposal, development, and implementation process. Operation and maintenance of each approved system shall conform to agency criteria, procedures, and standards.

303. <u>IMPACT ON NATIONAL SYSTEMS.</u> Regional data systems and ADP applications which may impact on national systems shall be subject to a national review process.

304. <u>REGIONAL ACCESS.</u> All Regional elements shall, in accordance with priorities, have access to data and services to meet their own program requirements. Each system shall have a data systems subject matter manager (the involved division or staff chief or his designee) who shall be responsible for the integrity, validity, security, and release of data from the system. Data shall be released outside the agency only after clearance from the OPI or in accordance with guidelines issued by the OPI, or the Privacy Act Coordinator if applicable.

WE 1370. 1A

305. <u>ONE-TIME STUDIES OR PROJECTS.</u> Where one-time studies or projects anticipate or result in data system development, they are subject to the RDSES approval process.

306. <u>REQUESTS FOR SERVICES.</u> Requests for data processing services shall be justified and coordinate to insure the services will be cost beneficial, that resources are available and that the request if fulfilled is in order of Regional priority.

307.-399. <u>RESERVED.</u>

CHAPTER 4.   RESPONSIBILITIES

The responsibilities of key individuals or organizations with relation to administrative data systems and services are set forth in the following paragraphs:

400. THE EXECUTIVE OFFICER, AWE-3. Serves as chairman of the RISRC and in that capacity, and with the advice of the committee members:

a. Exercises decision authority for the Director as to the approval or disapproval of regional administrative data systems, to be included in the Regional Data Systems, Equipment and Services Plan.

b. Recommends to the Office of Management Systems proposals for the acquisition, and use of data processing equipment, software and services.

c. Makes determinations where there is a question as to whether systems should be included or exempted from RISRC consideration.

401. THE REGIONAL INFORMATION SYSTEMS REVIEW COMMITTEE (RISRC).

(See Chapter 5.)

402. CHIEFS OF USER DIVISIONS OR STAFFS. OFFICES OF PRIMARY INTEREST (OPIs). Responsible for identifying requirements in own program area to meet operational needs and the needs of top management. Shall provide necessary documentation and secure required management approvals. Shall act as, or designate, a Data System Subject Matter Manager.

403. DATA SYSTEM SUBJECT MATTER MANAGER. Has management responsibility for an assigned data system and its related services. May be responsible for more than one system. For each system, the DSSMM shall:

a. Develop guidelines for the control and dissemination of data from the system.

b. As provided by the OPI, authorize the release of data in special cases where guidelines are not available. OPI is final authority.

c. In data systems where several program elements share primary operation interest, shall provide for coordination of those interests.

404. THE CHIEF, MANAGEMENT SYSTEMS DIVISION, AWE-60. Has management responsibility for automated administrative data systems and related services, equipment and resources. He shall:

a. Designate the OPI for operating regional systems and regional data systems under development.

    b. Periodically review regional data systems and related requirements, plans, operations, costs and benefits to assure that stated objectives and priorities are being met.

    c. Allocate assigned regional administrative data processing resources subject to regional budget policy, OMB Circular A-11 Reporting Procedures, and the limitations set by OMS and OST on ADP expenditures.

405. THE MANAGEMENT SYSTEMS DIVISION. Serves as the principal staff element for the preparation of the RDSES Plan and coordination of related activities. It:

    a. Provides staff support to the RISRC.

    b. Develops and maintains the RDSES Plan in coordination with the OPIs, and maintains a central index of regional data systems and ADP services.

    c. Assists other regional elements to identify data and services needed by specific program managers and by top regional management.

    d. Provides advice and assistance on the conduct of studies and in the preparation of related documentation.

    e. Provides data processing technical advice as required.

    f. Reviews proposals for entry of regional data systems into the RDSES Plan and recommends to the RISRC actions on proposals and justifications.

    g. Reviews proposals for the acquisition and use of ADP equipment, software and services; provides ADP services for those regional elements that have no locally assigned resources.

    h. Serves as the liaison channel with the Office of Management Systems, General Services Administration, and other agencies on matters pertaining to data, ADP systems, and services; with the exception of telecommunications services which are the responsibility of the Logistics Division.

406.-499. RESERVED.

CHAPTER 5.   REGIONAL INFORMATION SYSTEMS REVIEW COMMITTEE (RISRC)

500.   REGIONAL INFORMATION SYSTEMS REVIEW COMMITTEE. A Regional Information Systems Review Committee is established in the Western Region. Its function is to provide top management input and oversight to existing and proposed regional administrative data systems, to major revisions of existing regional data systems, and to any other requests or proposals which would significantly impact regional data processing resources. This will also include requests for regional data processing resources to develop, program and implement national systems applications.

501.   OBJECTIVE OF THE RISRC. The prime objective of the RISRC is to assure appropriate priority and maximum benefit to the region from the application of data processing resources to the automation of essential administrative management information systems.

502.   RECOMMENDATIONS OF THE COMMITTEE. Recommendations of the committee will be based upon good management judgment considering the cost of proposed applications in relation to the anticipated benefits, rather than the application of specific criteria.

503.   COMMITTEE MEETING. The committee will meet monthly on the call of the Chairman, who may also call special meetings as the need arises.

504.   PROPOSALS FOR THE RISRC. Proposals for consideration by the RISRC will be submitted to the Executive Secretary, AWE-65. Who will review proposals and prepare a technical analysis and recommendation for submission to the committee. Each committee member will be provided a copy, or summary, of the proposal prior to the meeting. Members are expected to review the submissions prior to the meeting in order that informative discussions may ensue, culminating in a decision by the Chairman for the Director, or recommendations to the Director.

505.   MEMBERSHIP. Membership of the Regional Information Systems Review Committee (RISRC) shall consist of the following:

> Chairman - AWE-3
>
> Members - AWE-20, 30, 60, 400, & 500
>
> Executive Secretary - AWE-65
>
> Technical Advisors - AWE-65 & 67

Chiefs of other divisions and staff offices will be invited to participate in committee deliberations on matters in which they have a direct interest. ANW-60 and ARM-60 may participate as members when subjects under consideration concern their respective regions.

506. <u>COMMITTEE CHAIRMAN.</u> AWE-3 as the committee chairman, with the advice of the committee, shall on behalf of the Director approve or disapprove entry of proposed regional data systems into the RDSES Plan or the continuance of existing data systems in the plan.

507. <u>PRINCIPAL STAFF SUPPORT.</u> The Management Systems Division, AWE-60, will provide the principal staff support for the RISRC, will develop and maintain the RDSES Plan and provide the committee members with recommendations regarding proposals to be brought before the committee.

508.-599. <u>RESERVED.</u>

CHAPTER 6.   REGIONAL DATA SYSTEMS, EQUIPMENT AND SERVICES PLAN (RDSES)

(TO BE ADDED LATER)

CHAPTER 7.   REQUESTS FOR DATA PROCESSING SERVICES

700. ADP SERVICES REQUEST. FAA Form 1370-20, ADP Services Request, will be completed for all requests or proposals for data processing systems, applications or services. A sample of the form and instructions for its completion are presented later in this chapter.

701. REGIONAL COORDINATION. Western Region organizations will forward the Form 1370-20 directly to AWE-60. Northwest and Rocky Mountain organizations will forward the form to their respective Management Systems Division, who will review and arrange any needed local coordination prior to forwarding to AWE-60.

702. REVIEW. Upon receipt in AWE-60, the form will be reviewed and entered into the processing cycle. Normally, the completed form will be sufficient upon which to make a judgment as to if and when it can be accomplished. In the event additional data is needed, the requester will be advised.

703. REQUIREMENTS AND PRIORITY. Generally, the simple statement of requirements and priority is sufficient. More complex requests may need a Requirements Analysis as detailed in Chapter 9. Certain requests which require the design and programming of a complete new system or the major redesign of an existing system, may require the preparation of a feasibility study to satisfy Agency, DOT or other requirements. Guidelines for the preparation of Feasibility Study Reports are presented in Chapter 8.

704. REQUIREMENTS ANALYSIS OR FEASIBILITY STUDY. If a Requirements Analysis or Feasibility Study is needed, AWE-60 will so advise the OPIs. These are generally prepared by the OPI. Assistance in performing these studies may be requested from the appropriate Management Systems Division.

705. INSTRUCTIONS. Instructions for completing FAA Form 1370-20, ADP Services Request:

   (Block (1) and Blocks (10) through (18) will be completed by AWE-60.)

   Block (2) Requester. Enter name and routing symbol of individual making request.

   Block (3) Contact. Enter name, routing symbol and phone number of individual to contact for information concerning the request.

   Block (4) Date of Request. Enter month, day, and year form was completed.

   Block (5) Required Completion Date. Enter month, day, and year by which request must be implemented.

    Block (6) <u>System/Procedure Title</u>. In an existing system, enter name and number of system as specified by established procedure. If a new system, enter the proposed title; make as descriptive as possible.

    Block (7) <u>Type of Request</u>. Check appropriate box.

    Block (8) <u>Description of Service Requested</u>. Describe in detail the problem or need the requested ADP service will satisfy. Cite reference material or documentation that may assist in describing the problem. Describe the objectives the ADP service must fulfill. State why the service is needed and provide any supporting material for justification. Provide estimates of cash savings that may accrue from implementing the request. List organizations which will benefit from the requested service. If the request involves replacing or supporting an existing system or process, describe how it relates to the current method. Include the boundaries or constraints that relate the solution to the problem. Include a description of data sources, if known. Describe requested output. Provide as much detail as possible, such as report layouts, spacing, and control totals. (Refer to FAA Form 1300-5, Form and Report Approval Request, if appropriate.) State the urgency or priority request in relation to other service requests now outstanding. Supply names of persons who can be contacted for further information.

    Block (9) <u>Approval/Disapproval/Routing Symbol/Date/Initial</u>. Space provided for approval or disapproval of information supplied by the requesting organization. If disapproval, state reasons on reverse side of form.

706.-799. <u>RESERVED</u>.

Figure No. 1. ADP Services Request

ADP SERVICES REQUEST			ADP CONTROL NO. ①

(Section I- to be completed by requesting organization)

REQUESTER ②	CONTACT ③	DATE OF REQUEST ④	REQ'D COMPL DATE ⑤

SYSTEM/PROCEDURE TITLE ⑥

TYPE OF REQUEST ⑦ ☐ NEW SYSTEM   ☐ SYSTEM CHANGE   ☐ ONE-TIME REQUEST   ☐ OTHER

DESCRIPTION OF SERVICE REQUESTED

⑧

⑨

APPROVAL	DIS-APPROVAL	ROUTING SYMBOL	DATE	INITIAL	APPROVAL	DIS-APPROVAL	ROUTING SYMBOL	DATE	INITIAL

(Section II- to be completed by ADP organization)

ASSIGNED TO ⑩	PRIORITY ⑪	ESTIMATED HOURS ⑫
DATE ASSIGNED ⑬	SUSPENSE DATE ⑭	START DATE ⑮	ACTUAL COMPLETION DATE ⑯

ESTIMATED COST		APPROVAL	DIS-APPROVAL	ROUTING SYMBOL	DATE	INITIAL
RECURRING	ONE-TIME					
LABOR____	PROGRAMMING____					
MATERIAL____	OTHER____					
EQUIPMENT____						
OTHER____ ⑰				⑱		
TOTAL RECURRING____	TOTAL ONE-TIME____					

FAA FORM 1370-30

CHAPTER 8. GUIDELINES FOR PREPARING FEASIBILITY STUDY REPORTS

800. FEASIBILITY STUDY. A feasibility study is an objective analysis to evaluate manual and ADP solutions to meet the needs identified in the Requirements Report (described in Chapter 9). The product of the feasibility study is a report that will enable management to make a decision on a future course of action. The Feasibility Study Report is prepared in a modified staff study format, as described in Order 1800.7, Staff Study Reports, and contains the following sections:

   a. The Requirements. Based on the user's Requirements Report, prepare a summary of and substantiate the requirements in terms of their impact on other agency elements.

   b. Background. Identify general information in the report that reviewers will have to know in order to fully comprehend and evaluate the various options discussed in the next two sections.

   c. Options. This section is merely a listing of the relevant options available to management, including the option of doing nothing at all.

   d. Analysis of Options. Analyze each of the above identified options in sufficient detail to:

      (1) Provide a description of the option under consideration including data sources, information flow, interfaces with other systems, reports, etc., so that management can picture how each option would meet the requirements.

      (2) Describe the benefits that would accrue if this option were implemented.

      (3) Identify the resources required to implement and operate this option, including life cycle costs, position requirements, impact on employment ceilings, employee salaries and grade levels, and equipment and contract requirements.

      (4) Describe all technical and management constraints (such as existing hardware, communication lines, software, security or privacy requirements, personnel or funding limitations, etc.) to the extent that they impact on these options.

      (5) Develop a plan of action with tasks and milestones for completing the systems proposal phase of the development process. Identify resources with each task. Also provide a summarized plan of action for the development and implementation phase of the project.

(6) Describe all other relevant considerations such as the source of funds and positions by organization and fiscal program, acceptability by users, organizational/personnel/procedural impact, advantages and disadvantages, etc., that should be considered by management.

e. <u>Recommendations</u>. Compare the advantages and disadvantages of each option. Identify the one which best fulfills the user's requirements and explain why.

f. <u>Coordination</u>. Summarize the actions taken to resolve significant comments and nonconcurrences by other offices which have an interest in or are impacted by the options considered.

Additional guidelines for the preparation of feasibility studies such as the requirement for executive summaries, letters of transmittal, and enclosures are contained in Order 1800.7, Staff Study Reports.

801.-899. <u>RESERVED</u>.

CHAPTER 9. GUIDELINES FOR PREPARING REQUIREMENTS ANALYSIS

900. REQUIREMENTS ANALYSIS REPORT. The product of a requirements analysis is a report which, when fully coordinated, will enable a project study team to evaluate potentially feasible alternative ways to collect and generate the required information, and to provide the needed information handling support. The focus is on the needs for information and procedural support, and not on the technical method (ADP or otherwise) by which these needs will be satisfied. The requirements analysis should include as a minimum the following sections:

a. The Problem. Describe the present problem situation in terms of the organization's objectives. Why is current information inadequate to meet FAA's needs now and in the future? If no information presently exists, why is it required now? What kinds of procedural problems are being encountered?

b. Background. Describe the user organization's functions, objectives, policies, and governing regulations as they relate to the problem under consideration. The organization's present means of satisfying its information needs must also be identified, including sources of data, frequency of response, level of accuracy, etc. Describe the current working environment, externally imposed constraints, methods and operating procedures. Prepare a functional flowchart depicting these procedures and the organizations involved.

c. Requirements. Requirements may be described as either a need for information or a need for new or improved procedures. In any case, describe what is required to resolve the "Problem" identified above. For each requirement:

(1) Define it in terms of the kinds of data and information that need to be brought together at one time so that a specific task can be performed. Identify this task.

(2) Describe the data in terms of source (who created it), amount of revision, availability, currency, accuracy, volume (amount of data to be used and generated), and whether historical data is available, if pertinent.

(3) Describe the information handling needed to support the task in terms of frequency (how often or under what conditions the information is needed), responsiveness (turnaround time), and distribution.

(4) Describe how each requirement will be used to resolve the problem or contribute to the function it is intended to support.

(5) Rank the importance of each requirement in terms of how it supports the organization's function.

d. <u>Organizational Interfaces</u>. Meeting each of the above information requirements will typically impact on other organizations and/or on other information systems. Identify these relationships and assess the impact (both positive and negative) of each.

e. <u>Coordination</u>. Summarize the actions taken to resolve significant comments and nonconcurrences by other program offices which have an interest in or would be affected by any effort taken to achieve the requirements identified in this report.

901.-999. <u>RESERVED</u>.